

Application No. 10/046,434
Amendment Dated July 1, 2004
Reply to Office Action of 25 March 2004

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (Canceled).

19. (Currently Amended) The ceramic film of claim ~~18~~²⁶, wherein said dielectric constant is from 2.2 to 1.3.

20. (Currently Amended) The ceramic film of claim ~~18~~²⁶, wherein a halide content is less than 500 ppb.

21. (Currently Amended) The ceramic film of claim ~~18~~²⁶, wherein said metal content is less than 1 ppm.

22. (Currently Amended) The ceramic film of claim ~~18~~²⁶, wherein said metal content is less than 100 ppb.

23. (Currently Amended) The ceramic film of claim ~~18~~²⁶, having a porosity of about 40% to about 80%.

24. (Currently Amended) The ceramic film of claim ~~18~~²⁶, having a porosity of about 55% to about 75%.

25. (Currently Amended) ~~The ceramic film of claim 18, A ceramic film produced by a process comprising:~~

preparing a film-forming fluid comprising a ceramic precursor, a catalyst, a surfactant

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and solvent(s):

depositing said film-forming fluid on said substrate; and
removing said solvent(s) from said film-forming fluid on said substrate to produce said
ceramic film on said substrate,

wherein said ceramic film has a dielectric constant below 2.3, and a metal content of less
than 500 ppm and wherein said film includes pores sufficiently ordered in a plane of the
substrate that an X-ray diffraction pattern of said film shows a diffraction peak at a d spacing
greater than about 44 Å.

26. (Currently Amended) ~~The ceramic film of claim 18, A ceramic film produced by~~
a process comprising:

preparing a film-forming fluid comprising a ceramic precursor, a catalyst, a surfactant
and solvent(s):

depositing said film-forming fluid on said substrate; and
removing said solvent(s) from said film-forming fluid on said substrate to produce said
ceramic film on said substrate,

wherein said ceramic film has a dielectric constant below 2.3, and a metal content of less
than 500 ppm and wherein said film does not include pores sufficiently ordered in a plane of the
substrate such that an X-ray diffraction pattern of said film shows a diffraction peak.

27. (Canceled)

28. (Currently Amended) The ceramic film of claim ~~2735~~, wherein said dielectric

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constant is from 2.2 to 1.3.

29. (Currently Amended) The ceramic film of claim 2735, wherein a halide content is less than 500 ppb.

30. (Currently Amended) The ceramic film of claim 2735, wherein said metal content is less than 1 ppm.

31. (Currently Amended) The ceramic film of claim 2735, wherein said metal content is less than 100 ppb.

32. (Currently Amended) The ceramic film of claim 2735, having a porosity of about 50% to about 80%.

33. (Currently Amended) The ceramic film of claim 2735, having a porosity of about 55% to about 75%.

34. (Currently Amended) ~~The ceramic film of claim 27~~ A ceramic film having a dielectric constant below 2.3, a metal content of less than 500 ppm and a porosity of about 40% to about 80%., wherein said film includes pores sufficiently ordered in a plane of the substrate that an X-ray diffraction pattern of said film shows a diffraction peak at a d spacing greater than about 44 Å.

35. (Currently Amended) ~~The ceramic film of claim 27~~ A ceramic film having a dielectric constant below 2.3, a metal content of less than 500 ppm and a porosity of about 40% to about 80%., wherein said film does not include pores sufficiently ordered in a plane of the substrate such that an X-ray diffraction pattern of said film shows a diffraction peak.

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36. (Currently Amended) The ceramic film of claim 2734, having a median pore size less than about 50Å.

37. (Currently Amended) The ceramic film of claim 2335, having a median pore size less than about 50Å.